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AMERICAN ACADEMY *of* ACTUARIES

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June 11, 2013

Commissioner Julie Mix McPeak and Superintendent Joseph Torti III  
Co-Chairs, NAIC Principle-based Reserving Implementation (EX) Task Force  
National Association of Insurance Commissioners

Dear Commissioner McPeak and Superintendent Torti:

The American Academy of Actuaries<sup>1</sup> Principle-based Reserves Strategy Subgroup (PBRSS) appreciates the opportunity to make additional comments on the May 9 drafts of the NAIC Legislative Brief and accompanying Educational Brief on principle-based reserving. The PBRSS believes that the Legislative Brief and accompanying Educational Brief are excellent sources of information for states considering adoption of the new Standard Valuation Law.

On April 19 and May 6, we submitted comments on earlier drafts of the Legislative/Educational Brief. The May 9 drafts, which reflect many of our comments, were presented on a May 13 conference call of the NAIC PBR Implementation Task Force. On that call you asked for the assistance of the PBRSS, the ACLI, the State of Connecticut, and NAIC staff to research a solution to the following question:

- Can the same statements about the impact of PBR on reserves be included in both the Legislative Brief and the Educational Brief?

The PBRSS met with the ACLI, the State of Connecticut, and NAIC staff to consider the best way to utilize the numerical results from the NAIC 2012 impact study to serve the purpose of educating the reader on the impact of PBR on reserves. After much discussion, we concluded that once the numerical results from the impact study were referenced in the Educational Brief, it was necessary to mention all of the relevant caveats. We then considered whether the numerical results should be discussed at all, and agreed that since the numerical results had been previously published, the public had a right to expect some discussion of those results. Such discussion could not be made concise enough to be appropriate for inclusion in the Legislative Brief. In fact, the most helpful discussion of the information suggests that more caveats are needed, not

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<sup>1</sup> The American Academy of Actuaries is a 17,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

fewer. As long as the Legislative Brief does not include actual numbers, no caveats are needed, and fairly concise wording is possible.

The attached suggested changes to the Legislative Brief and the Educational Brief were crafted by the PBRSS with input from the ACLI, the State of Connecticut and NAIC staff (we re-formatted it so that it would fit on one page). We also noticed that the statement regarding the requirement that the revisions to the Standard Valuation Law be adopted by a super majority of states is listed in three places, and so there may be an opportunity to remove the wording in one of those instances.

The Educational Brief indicates that the effect of PBR on total life insurance reserves would be a decrease of less than 5% by the end of five years. This reflects (1) the low end of the range of results for the products analyzed by the NAIC impact study; and (2) reasonable hypothetical assumptions for the mix of business projected for future years. We believe it is a good indication of the general level of the impact (small), but as discussed in our suggested changes to the Educational Brief, any specific estimate of the impact of PBR on total life insurance reserves needs to be viewed with a great deal of caution since future regulatory and company decisions will affect the impact.

We also made a few suggestions for some minor changes in other sections of the two briefs, and a suggestion to eliminate the statement that the VM would “help increase uniformity across the states, which could lower insurance costs to consumers.” While we believe that a uniform methodology would have this effect, there have been no studies to support that claim.

Note that the Legislative Brief refers to the Educational Brief in a footnote. The PBRSS recommends that these two documents be delivered together, and/or a link be provided to the Educational Brief if electronic versions of the two briefs are available.

Please contact John Meetz, the Academy’s life policy analyst ([meetz@actuary.org](mailto:meetz@actuary.org); 202/223-8196) if you have any questions.

Sincerely,

Cande Olsen, Chairperson, FSA, MAAA  
Principle-based Reserves Strategy Subgroup  
American Academy of Actuaries

## Principle-Based Reserving (Not Yet Adopted)

- Life insurance policy reserves are the money an insurance company must ~~set aside~~~~have~~ today to pay expected future life insurance claims.
- Life insurance policy reserves are currently calculated (or “valued”) using pre-set formulas. Principle-Based Reserving, or PBR, would use more advanced methodologies to ~~better reflect and measure~~~~be a closer match to~~ the risks of the new innovative insurance policies.
- PBR includes two law changes and a new Valuation Manual. The NAIC adopted a revised Standard Valuation Law in 2009, a revised Standard Nonforfeiture Law in 2012, and a Valuation Manual in 2012.
- PBR will be effective only after a supermajority of states, representing 75% of written premium, adopts the revised laws and will apply only to new life insurance business.

### Background

Innovation in life insurance products provides consumers with products they want, but can also make it more difficult to capture the value of the life insurance promise with a simple formula. The result is a constant need for modification of formulas and the laws containing those formulas. In 2009, the NAIC adopted a revised model Standard Valuation Law (SVL) which introduced a new method for calculating life insurance policy reserves to more easily adapt requirements for changing products. This new method is referred to as Principle-Based Reserving, or PBR. Once adopted by legislatures, PBR would replace the current formulaic approach to determining policy reserves with an approach that more closely ~~reflects~~~~calculates~~ the risks of the highly complex products. The improved calculation is expected to “right-size reserves,” reducing reserves that are too high for some products and increasing reserves that are too low for other products. ~~While;~~ ~~overall~~ the impact on each company could vary widely, it is expected that the effect on total reserves would be a small~~slightly~~ decrease, especially in the initial years.<sup>1</sup> However, the increase or decrease in reserves is much less important than the “right-sizing” of reserves. ~~This new method.~~ ~~It~~ will ~~also~~ help reduce the incentive for company “workarounds” designed to reduce reserves. The revised SVL would authorize creation of a Valuation Manual that contains reserving requirements. The Valuation Manual was adopted by a supermajority of NAIC members in December 2012, paving the way for states to begin adopting revisions to the SVL in their legislative sessions. Once at least 42 states (a supermajority) representing 75% of total U.S. premium adopt the revisions to the SVL, PBR will be implemented.

### Key Points

- States may adopt revisions to the Standard Valuation Law (SVL) beginning in the 2013 legislative sessions.
- PBR will be effective only after the law revisions are adopted by at least 42 states representing 75% of total U.S. premium and then, after a three-year transition period. (Companies can implement PBR anytime in the 3 years.)
- The Valuation Manual will continue to be updated annually as part of an ongoing maintenance process.
- The NAIC and state insurance departments must assess their needs for additional staffing, as PBR requires a greater degree of actuarial expertise. Already, the NAIC plans to hire additional actuarial staff to assist states.
- Change to the Standard Non-Forfeiture Law for Life Insurance is intended as a package with the SVL changes so that mortality and interest rate assumptions are coordinated.
- The Valuation Manual provides exclusion criteria which allow simpler products, with fewer guarantees and therefore less risk, to be subject to simpler reserving requirements.

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<sup>1</sup> [Additional discussion of the impact on reserves can be found in the NAIC PBR Educational Brief](#)

## PBR EDUCATIONAL BRIEF

(Supplement to the Legislative Brief for those readers interested in more detail on PBR)

### Standard Valuation Law and Standard Nonforfeiture Law

- What are the changes to the Standard Valuation Law?
- What are the changes to the Standard Nonforfeiture Law?
- What is the Valuation Manual?

### Principle-Based Reserving

- What is PBR?
- Why is PBR needed?
- Is PBR more or less conservative?
- What will make PBR successful?
- How will PBR affect consumers?
- How will PBR affect insurance companies?
- How will PBR affect insurance regulators?

### Standard Valuation Law and Standard Nonforfeiture Law

- **What are the changes to the Standard Valuation Law?**
  - The Standard Valuation Law (SVL) is unchanged for current business.
  - The SVL includes new sections to authorize an NAIC Valuation Manual, thereby implementing PBR reserving, and to require insurance company reporting of data experience.
  - The SVL preserves commissioner authority to require companies to change any assumption or method, as appropriate, and to engage a qualified actuary at the expense of the company to review compliance with Valuation Manual requirements.
- **What are the changes to the Standard Nonforfeiture Law?**
  - The Standard Nonforfeiture Law establishes minimum benefit values if policies are surrendered or lapsed.
  - For consistency, the Standard Nonforfeiture Law would refer to the Standard Valuation Law and the Valuation Manual as the source for mortality and ~~interest~~ **interested** rates used in nonforfeiture calculations.
  - At present, the standard nonforfeiture value calculations are not changed.
- **What is the Valuation Manual?**
  - The Valuation Manual contains reserve calculation requirements as agreed by commissioners as members of the NAIC. Requirements include experience reporting, actuarial opinion, PBR reporting, and corporate governance requirements.
  - Most of the requirements are dynamic in nature, automatically adaptable to changes in the insurance marketplace and changes in the economy.
  - Other changes (to prescribed elements) can be made to the Valuation Manual similar to the way changes are made to the NAIC Accounting and Procedures Manual, which sets out the details of statutory accounting.
  - Future changes in the Valuation Manual require approval by a supermajority of NAIC

jurisdictions (PBR will be effective only after the law revisions are adopted by at least 42 states representing 75% of total U.S. premium and then, after a three-year transition period. (Companies can implement PBR anytime in the 3 years.))

## Principle-based Reserving (PBR)

### ➤ What is PBR?

- Insurers set aside funds, or reserves, to pay insurance claims when due. Currently, formulas and assumptions are used to determine these reserves, as prescribed by state ~~laws~~law and regulations.
- Companies will hold the ~~higher~~HIGHER of a) the reserve using prescribed factors and b) the reserve which considers a wide range of future economic conditions and is computed using justified company experience factors, such as mortality, policyholder behavior, and expenses.
- The Valuation Manual ~~is would be~~ established by the Standard Valuation Law and would be used to detail the reserve calculation requirements.
- The new Standard Valuation Law and Valuation Manual are built to encompass requirements for all life and health insurers and the business they write. Initially, reserving methods only change for life insurance. However, over time, PBR is expected to be developed for other product lines.

### ➤ Why is PBR needed?

- The formulaic approach prescribed by current state laws and regulations needs to be frequently updated as new product designs are introduced. PBR alleviates this need to a great degree.
- State laws would establish principles upon which reserves are to be based rather than specific formulas, with more detail and constraints included in the Valuation Manual.
- Current formulas do not always accurately reflect the risks or the true cost of the liability or obligations of the insurer. ~~liabilities held on policies~~. For some products this leads to excessive conservatism in reserve calculations and for others it results in inadequate reserves.
- The current system locks in certain assumptions, resulting in reserves that do not change as economic conditions change or as insurers accumulate actual experience. The new system adjusts reserves as economic conditions change and as insurers accumulate credible experience.

### ➤ Is PBR more or less conservative?

- When compared to current statutory reserve levels, PBR reserves will be higher for some insurance products and lower for others, because PBR uses a process that more accurately reflects the risks assumed by life insurers. The NAIC's 2012 impact study shows lower reserves for competitive level premium term insurance and both lower and higher reserves for universal life policies with secondary guarantees. This analysis, which was performed before both the Valuation Manual and the most recent changes to current reserve requirements were finalized, covered a small, but diverse sample of companies, and measured reserves at a point in time five years after the implementation of PBR. The term life insurance products analyzed demonstrated a projected 38% to 64% decrease in reserves for products issued during the first 5 years of PBR. The Universal Life with Secondary Guarantee (ULSG) products that were analyzed demonstrated reserve impacts ranging from a decrease of 44% to an increase of 63% over that same time period. The wide range of outcomes for ULSG is not unexpected given the variations in company interpretations of the reserve requirements for this product type that were in effect when this study was done. Reserves for most other products (e.g., whole life and current assumption universal life) remained unchanged. This analysis suggests that for some products there could be a significant change, but the fact that the analysis was done before both the Valuation Manual and the most recent changes to current reserve requirements were finalized, and that it only covered products issued during the first 5 years of PBR, are important considerations when evaluating its results. The analysis also assumes that current designs and

pricing remain unchanged from today, which is unlikely.

The Principle-based Reserve Strategy Subgroup of the American Academy of Actuaries (Academy) cautions that the change in reserve levels for an individual product, a single company or the entire life insurance industry should not be the only metric used to evaluate the merits of PBR. An estimate of the decrease or increase in reserves is only one factor and is not necessarily good or bad in and of itself; such estimates are only useful when considered in light of the effectiveness of the current statutory reserve requirements. The more important consideration is that, whether reserves increase or decrease under PBR, the reserves will more accurately reflect the risks assumed by life insurers (i.e., the “right-sizing” of reserves).

In addition, even if there are large changes in reserves for individual products as the NAIC’s impact study shows, the overall effect on life insurance reserves will be small. The Academy extended the NAIC’s impact study results to estimate the impact of PBR on life insurance industry reserves in aggregate. The Academy projected a hypothetical representation of life insurance industry reserves for products issued during the first 5 years of PBR. It is hypothetical because (1) no participating companies provided results for all term products being sold, (2) there is a wide variety of ULSG specific factors, and (3) all other assumptions, like the type of products being sold in the marketplace, were expected to stay the same. Under these hypothetical assumptions, the projected impact of PBR on total life insurance reserves for the industry was shown to be a decrease of less than 5%.

The 5% estimate is driven largely by the fact that PBR only applies to policies issued on or after the effective date of the Valuation Manual, and has no impact on the large block of inforce policies that are not subject to the new PBR requirements. That percentage will likely change in future years, due to a variety of counteractive forces. As a block of policies ages, the percentage decrease in reserves will tend to decline. That is because reserves are relatively low during early policy durations, and even small reductions can be large percentages. However, this will be offset by the fact that, as new policies are issued, a larger block will be subject to PBR, which will tend to raise the percentage decrease. This process will take many years and, for any given company, will depend upon the type and nature of its life insurance portfolio.

The Academy stresses that the estimated impact should be viewed with a great deal of caution since many companies will choose to delay implementation under the three year phase-in option. Further, many companies will change their product offerings over the next five years. There is no way of quantifying the impact of these developments on the life insurance reserve levels for an individual company or for the industry in aggregate.

- ~~○ Reserves will be higher for some insurance products and lower for others, set at levels that more accurately reflect the risks assumed by life insurers. The NAIC’s 2012 impact study shows lower reserves for competitive term insurance and both lower and higher reserves for universal life policies with secondary guarantees.<sup>‡</sup>~~
- The PBR approach is built with numerous safeguards:
  - Prescriptive and limiting elements have been introduced into the Valuation Manual that will limit the extent to which reserves will be reduced from the current levels.

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<sup>‡</sup> In a study performed by Towers Watson, some of the competitive term life insurance products studied showed reserves that dropped by as much as 30% to 50% under PBR whereas some of the UL with secondary guarantee (ULSG) products studied showed a decrease of 14% to 44% and some ULSG products showed an increase in reserves (ULSG results were affected by varying practices to calculate CRVM reserves). Reserves for most other products in the study (e.g. whole life) remained unchanged.



- If the new PBR method produces higher reserves than the minimum reserve floor, that higher reserve must be booked.
- PBR will be phased-in over 3 years after the Valuation Manual is in effect operational.
- PBR only applies to new policies issued after the revised standard valuation law and Valuation Manual are in effect.

~~○ Regulators will be building more analytical tools and will be implementing data requirements to enhance regulatory oversight.~~

#### ➤ What will make PBR successful?

- Regulators will collectively review PBR through NAIC activity and can easily quickly adjust the Valuation Manual, if needed.
- Companies will be able to appropriately reflect their own company experience (i.e. mortality, lapse, expenses, etc.) in the reserves calculation with an appropriate level of conservatism. Companies must justify their calculations.
- Regulatory ~~tools will be built and~~ resources will be enhanced. At present, the NAIC is studying the need for resources at the states and the ability for collective sharing of experience with the new requirements at the NAIC to aid the states.
- Regulators will be building more analytical tools and will be implementing data requirements to enhance regulatory oversight.
- PBR will allow better alignment of regulatory requirements with company risk exposures and risk management practices.

#### ➤ How will PBR Affect Consumers?

- “Right-sizing” the reserves is important for consumers. Holding higher reserves than necessary results in higher costs to consumers. Holding reserves that are too low can put companies at greater risk of insolvency, with lower protection to consumers.
- PBR is a step needed to ultimately allow for the introduction of multi-benefit products ~~to be introduced by insurers~~ that can be more flexible and valuable to consumers. Some examples are life insurance policies that can automatically convert to annuities ~~an annuity~~ upon retirement, products that could cover an entire family for life insurance, or that could provide life insurance protection for a woman (or man) while simultaneously providing retirement income to a parent or to pay for home or nursing home care.
- ~~Use of the Valuation Manual will help increase uniformity across the states, which could lower insurance costs to consumers.~~

#### ➤ How will PBR Affect Companies?

- The calculation of PBR reserves will require insurers to model and assess the risks they undertake in offering their products to consumers. Insurers writing complex products are exposed to various risks and should already be utilizing sophisticated actuarial models to manage those risks. Thus, the new modeling requirements of PBR should not represent challenges to those insurers. To the extent insurers do not offer products with the complex risks, compliance with the new requirements will be less demanding. The Valuation Manual VM includes exclusion tests that allow less complex products to be excluded from PBR calculations.
- Since companies may choose to phase-in PBR ~~PBR will be phased in~~ over three years after the Valuation Manual is effective operational, it allows companies to plan (and spread out) the ~~implementation of~~ additional work of implementation.

#### ➤ How will PBR Affect Insurance Regulators?

- While PBR and the Valuation Manual VM are new, PBR is the codification of more modern valuation methods that have been in development for more than 20 years. The NAIC and state regulators have been modernizing different aspects of the entire solvency regime over this time.
- The gradual implementation of PBR will give regulators more time to familiarize themselves with the new requirements. Regulators will need to consider how PBR fits into the risk-focused approach to financial examination; materiality of PBR reserves of a particular block of business will be a

consideration. A phased-in implementation and safeguards described above will allow sufficient time to evaluate the effectiveness of the new requirements and determine if adjustments are needed.

- As regulatory expertise develops and comfort level increases, regulatory focus should shift to the insurers whose assumptions and/or reserve levels are outliers relative to industry norms. A better understanding of the range of results and best practices will lead to appropriate changes to the Valuation Manual.~~VM~~.
- PBR may reduce the un-level playing field created by product designs developed with the express intention to take advantage of the limitations of the formulaic approach, and PBR may more readily allow for product designs that weren't contemplated by the formulaic approach. Successful implementation of PBR will result in fewer resources needed for the update and maintenance of valuation standards to address these situations.